DX-C330

Ref. No. 3528

ONKYO SERVICE MANUAL

COMPACT DISC PLAYER

MODEL DX-C330

Black model

BMD	120V AC, 60Hz
BMP	230V AC, 50Hz
BMW	120/220V AC, 50/60Hz

SATETY-RELATED COMPONENT WARNING!!

COMPONENTS INDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

Compact Disc Automatic Changer Model DX-C330

Signal readout system:	Optical non-contact
Reading rotation:	About 500 - 200 r.p.m. (constant linear velocity)
Linear velocity:	1.2 - 1.4 m/s
Error correction system:	Cross Interleave Reed-Solomon code
D/A converter:	1 bit PWM/ACCUPULSE
Sampling frequency:	352.8 kHz (8 times oversampling)
Number of channels:	2 (stereo)
Frequency response:	2Hz - 20kHz
Total harmonic distortion:	0.004% (at 1kHz)
Dynamic range:	96dB
Signal to noise ratio:	96dB
Channel separation:	90dB (at 1kHz)
Wow and Flutter:	Below threshold of measurability
Output level:	2 volts r.m.s.
Power consumption:	13 watts
Power supply rating:	European and Australian models: AC 230V, 50Hz USA and Canadian models: AC 120V, 60Hz Worldwide model: AC 120V and 220V
Dimensions (W × H × D):	455 × 120 × 425 mm (17-15/16" × 4-3/4" × 16-11/16")
Weight:	7.4 kg (16.3 lbs)

Specifications and external appearance are subject to change without notice because of product improvements.

SERVICE PROCEDURES

1. Safety-check out

After correcting the original service problem,perform the following safety check before releasing the set to the customer:

Connect the insulating-resistance tester between the plug of power supply cord and chassis.

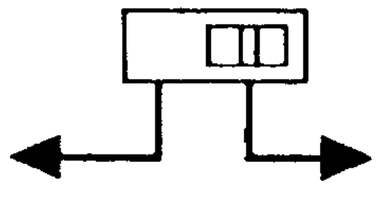
Specifications:More than 10Mohm at 500V.

2. Voltage Selector (Back panel)

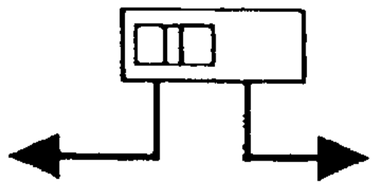
Worldwide models are equipped with a voltage selector to conform with local power supplies.Be sure to set this switch to match the voltage of the power supply in user's area before turning the power switch on.

Voltage is changed by sliding the groove in the switch with a screw driver to the right or left.

Confirm that the switch has been moved all the way to the right or left before turning the power switch on.



at AC120V



at AC220V

CAUTION ON REPLACEMENT OF OPTICAL PICK UP

The laser diode in the optical pickup block is so sensitive to static electricity,surge current and etc, that the components are liable to be broken down or its reliability remarkably deteriorated.

During repair,carefulley take the following precautions. (The following precautions are included in the service parts.)

PRECAUTIONS

1.Ground for the work-desk.
Place a conductive sheet such as a sheet of copper (with inpedance lower than 10MΩ) on the work-desk and place the set on the conductive sheet so that the chassis.

2.Grounding for the test equipment and tools.
Test equipments and toolings should be grounded in order that their ground level is the same the ground of the power source.

3.Grounding for the human body.
Be sure to put on a wrist-strap for grounding whose other end is grounded.
Be particularly careful when the workers wear synthetic fiber clothes, or air is dry.

4.Select a soldering iron that permits no leakage and have the tip of the iron well-grounded.

5.Do not check the laser diode terminals with the probe of a circuit tester or oscilloscope.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMMISION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

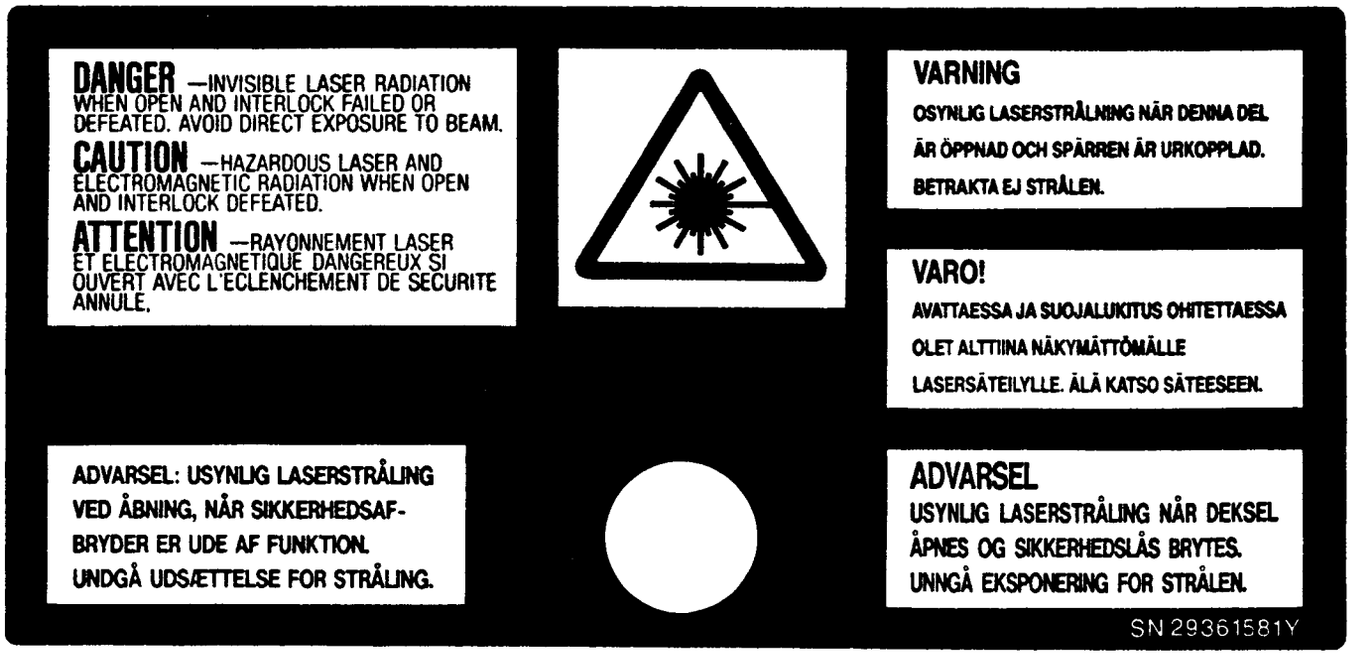
Laser Diode Properties

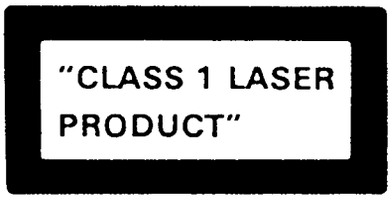
- Material: GaAlAs
- Wavelength: 760~800nm
- Emission Duration: continuous
- Laser output: max. 0.5mW*

  *This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pick-up Block.

LASER WARNING LABEL

These labels are located on the mechanism.





μPD78043GF-082 (Microprocessor)

No.	Symbol	I/O		Description
1	NC			Not used
2	NC			
3	5G	O	H	Digit output terminals for fluorescent indicator tube
4	4G			
5	3G			
6	2G			
7	1G			
8	Vdd	I		Power supply terminal (+5V)
9	CLK	O		Serial transfer clock output terminal of command to the signal processor IC.
10	DATA	O	H	Serial data of command of signal processing IC
11	XLT	O	↓	Command to signal processing IC
12	DMUT	O	H	Muting signal to signal processing IC
13	AMUT	O	H	Muting signal
14	SQCK	O	↑	Serial transfer clock of sub code Q to signal processing IC
15	NC			Not used
16	SQSO	I		Serial transfer data of sub code Q from signal processing IC
17	XRST	I	L	Reset signal
18	SENS	I	I	Sense signal from signal processing IC
19	RI.IN	I		Input terminal of control signal RI
20	GND	I		
21	RI.OUT	O		Output terminal of control signal RI
22	MD2	O	L	Inhibiting signal of digital output
23	DEFECT	O	H	Inhibiting signal of DEFECT circuit to servo comparator
24	AD4	I	6	A/D port for key input (Normal : 5V)
25	AD3		7	
26	AD2		8	
27	AD1		9	
28	AD0		10	
29	AVdd	I		Voltage supply terminal for analog
30	AVref	I		Reference voltage supply terminal for analog
31	DX-C311 Select	I		Model selection terminal
32	NC			Not used
33	Vss	I		
34	X1	I		System clock oscillation input
35	X2	O		System clock oscillation output
36	LSR	O	H	Laser control signal
37	ROT.STOP.SENS	I	H	Carousel stop position detection photo interrupter input
38	ROT.POS.SENS	I	↑	Carousel disc position detector photo interrupter input
39	ROT.HI	O	H	Carousel high speed rotation signal
40	ROT.R	O	L	Carousel rotation control signal
41	ROT.L	O	L	
42	CH.CLOSE	O	L	Chucking control signal

No.	Symbol	I/O		Description
43	CH.OPEN	O	L	
44	LD.CLOSE	O	L	Tray loading control signal
45	LD.OPEN	O	L	
46	SCOR	I	↓	Synchronizing signal detector of sub code sink
47	RMCN	I	L	Remote control signal input port
48	NC			Not used
49	FOK	I	H	Focus OK signal
50	LD.CLOSE.SW	I	L	Tray loading finishing switch input
51	LD.OPEN.SW	I	L	Tray opening finishing switch input
52	Vdd	I	L	
53	CH.CLOSE.SW	I	L	Chucking finishing switch input
54	CH.OPEN.SW	I	L	Chucking open finishing switch input
55	LD.CURRENT	I	L	Detective signal of overcurrent for loading motor
56	ROULETTE.BRAKE	I		Setting the carousel break (H=40msec,L=20msec)
57	NC			Not used
58	NC			
59	NC			
60	NC			
61	P16	O	H	Segment output for fluorescent indicator tube
62	P15			
63	P14			
64	P13			
65	P12			
66	P11			
67	P10			
68	P9			
69	P8			
70	Vfdp	I		Negative voltage for FL tube
71	P7	O	H	Segment output for fluorescent indicator tube
72	P6			
73	P5			
74	P4			
75	P3			
76	P2			
77	P1			
78	NC			Not used
79	NC			
80	NC			

H : Operation at the high level

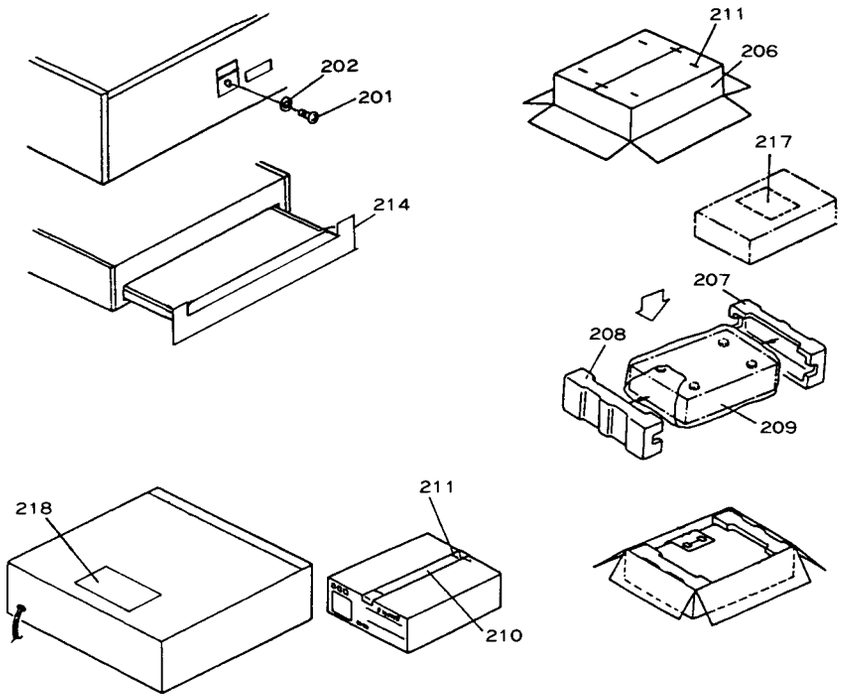
L : Operation at the low lebel

6,7,8,9,10 : A/D converter input

↑ : Operation at leading pulse

↓ : Operation at trailing pulse

PACKING VIEW



PARTS LIST

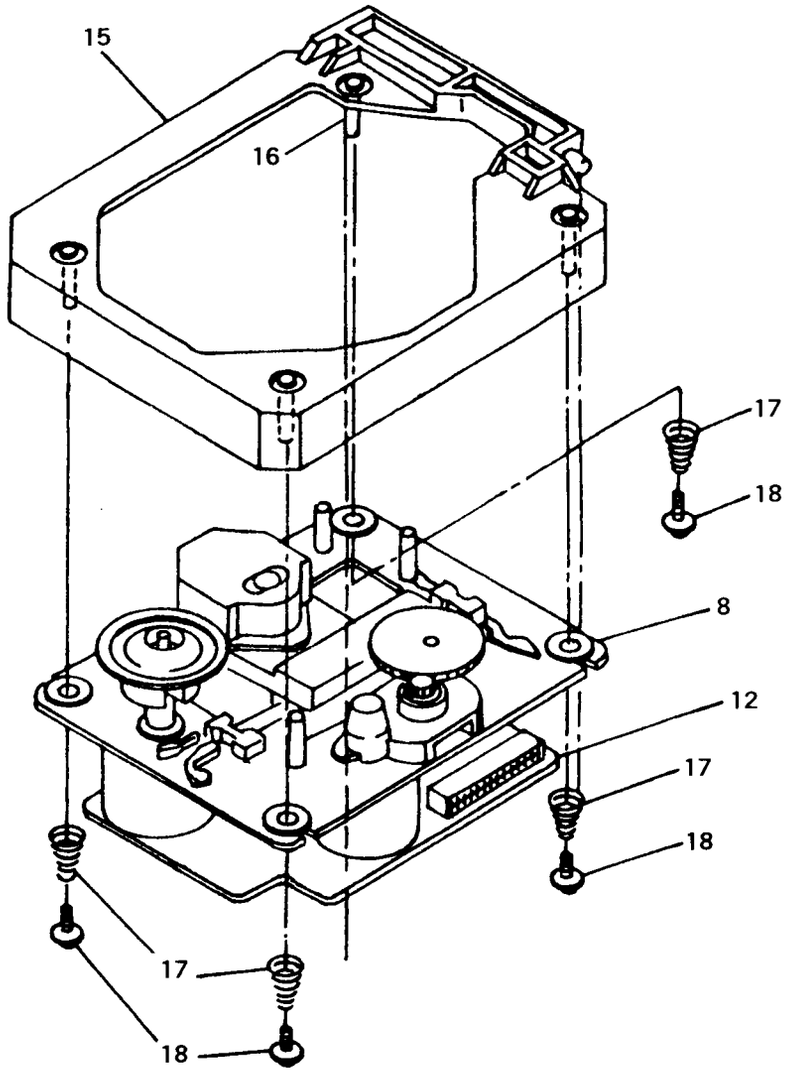
REF.NO.	PART NO.	DESCRIPTION
201	82115018Y	5P+18FN, SCREW
202	27270382Y	t 0.5×15×5.2, SPACER
206	29052969Y	CARTON
207	29091713Y	PAD (L)
208	29091714Y	PAD (R)
209	29100141Y	700×600, POLY BAG
210	29110071Y or	DAMPLON TAPE
	29110098Y	DAMPLON TAPE
211	282301Y or	STAPLE
	282321Y	STAPLE
214	29095721Y	SHEET (DOOR)
246	29360840	LABEL (SHEET) <D>
	29361786Y	LABEL (SHEET) <A,T>
217	29355207Y	INSTRUCTION SHEET
218	29360687Y	CLASS1 LABEL (SHEET) <W,A,T>
219	29361923Y	UPC LABEL <N>

PART NO.	DESCRIPTION
ACCESSARY BAG AS	
2010244Y	PIN CORD AS
2010200	REMOTE CONTROL CORD
24140289Y	REMOTE CONTROL UNIT
3010054	UM-3, BATTERY
29342268Y	INSTRUCTION MANUAL (E)
29342269Y	INSTRUCTION MANUAL (U3) <W,C,T>
29365019B	WARRANTY CARD <N>
29365042	WARRANTY CARD <A>
29358002K	SERVICE STATION LIST <N>
25055040	CV PLUG, CV-K-2 <W>
29100097-1Y	350×250, POLY BAG

<D> : 120V model only
<P> : 230V model only
<W> : Worldwide model only
<N> : American model only
<C> : Canadian model only
<A> : Australian model only
<T> : Taiwanese model only

DX-C330

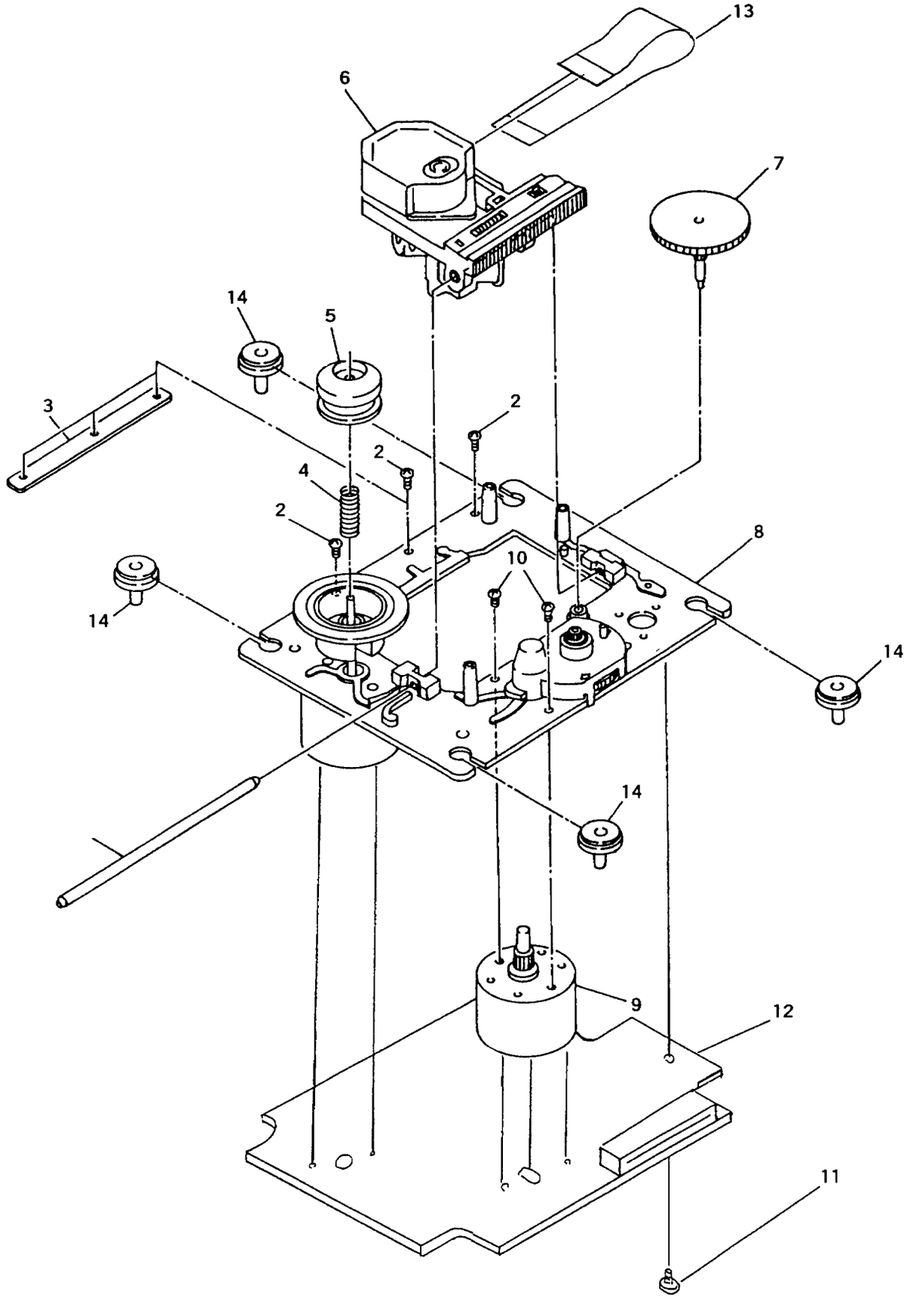
MECHANISM-EXPLODED VIEW



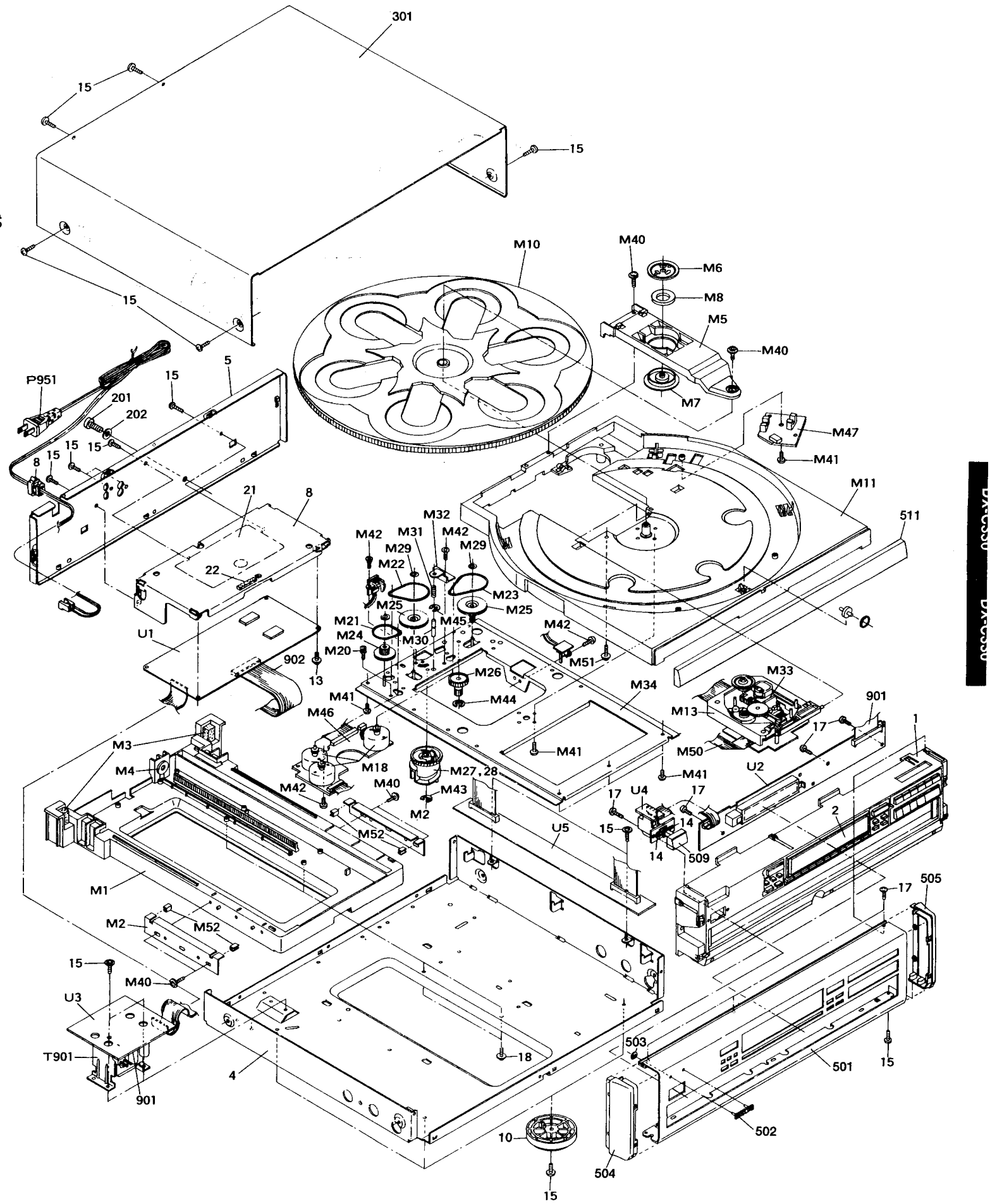
PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	24828006	Sled shaft
2	24840068	2 x 5, Self-tapping screw
3	24822015A	Reinforcement plate
4	24820024	Spring
5	24824003	Centering
6	24110011	Pick-up
7	24810023	Wheel
8	24802014	Chassis ass´y
9	24804012	Sled motor ass´y
10	82112003	2P+3FN, Pan head screw
11	24840099	2 x 6, Self-tapping screw
12	24840075A	AR-AS-1A, RF/Servo pc board ass´y
13	24840074	Flexible cable
14	24818012	Insulator (FLT)
15	24802016	Chassis (SUB)
16	24828012	Shaft (FLT)
17	24820026	Spring (FLT)
18	24609072Y	Screw (FLT)

PICK-UP DRIVE UNIT KSK-1320A



EXPLODED VIEW



PARTS LIST

CIRCUIT NO.		PART NO.	DESCRIPTION
1		27110801Y	FRONT BRACKET
2		28191679AY	CLEAR PLATE
4		27100282AY	CHASSIS
5		27122153Y	REAR PANEL <D>
		27122155Y	REAR PANEL <W>
		27122188Y	REAR PANEL <A,T>
8		27130731AY	BRACKET(PC)
10		27175292-1Y	LEG AS
11	⚠	27300750	CORD BUSHING
14		838430107Y	3TTB+10S(BC), SCREW
15		838130088Y	3TTB+8B, SCREW
17		833430080Y	3TTP+8P(BC), SCREW
21		29361581Y	LABEL (ALL)
22		28141240Y	CUSHION
301		28184513-1Y	TOP COVER
302		28141235	CUSHION
501		27211763Y	FRONT PANEL
502		28135199	BADGE
503		8910301	CS RING
504		28125248-6Y	END CAP (L)
505		28125249-6Y	END CAP (R)
509		28324140Y	KNOB (POW)
511		28148306Y	DOOR
517		838430088Y	3TTB+8B(BC), SCREW
518		833430080Y	3TTP+8P(BC), SCREW
519		838130088Y	3TTB+8B, SCREW
901		2046341512Y	FFC (NCFC6-341512)
902		2046312522	FFC (NCFC6-312522)

CIRCUIT NO.		PART NO.	DESCRIPTION
P951	⚠	253192HIT	AC CORD (AS-UC-6#18) <D>
	⚠	253193HIT	AC CORD (AS-CEE) <W,T>
	⚠	253197HIT	AC CORD (AS-SAA) <A>
T901	⚠	2300992Y	POWER TRANSFORMER, NPT-1200D <D>
	⚠	2300994Y	POWER TRANSFORMER, NPT-1200DG <W>
	⚠	2300993Y	POWER TRANSFORMER, NPT-1200P <A,T>
U1		1H242520-2Y	NAAR-4920-2, MAIN CIRCUIT PC BOARD AS
U2		1H242521-2Y	NADIS-4921-2, DISPLAY CIRCUIT PC BOARD AS
U3		1H242522-2Y	NAPS-4922-2, POWER SUPPLY PC BOARD AS <D>
		1H242522-2BY	NAPS-4922-2B, POWER SUPPLY PC BOARD AS <W>
U4		1H242523-2Y	NASW-4923-2, POWER SWITCH PC BOARD AS
U5		1H242552-2Y	NAETC-4952-2, MAIN CIRCUIT PC BOARD AS

<D> : 120V model only
<P> : 230V model only
<W> : Worldwide model only
<N> : American model only
<C> : Canadian model only
<A> : Australian model only
<T> : Taiwanese model only

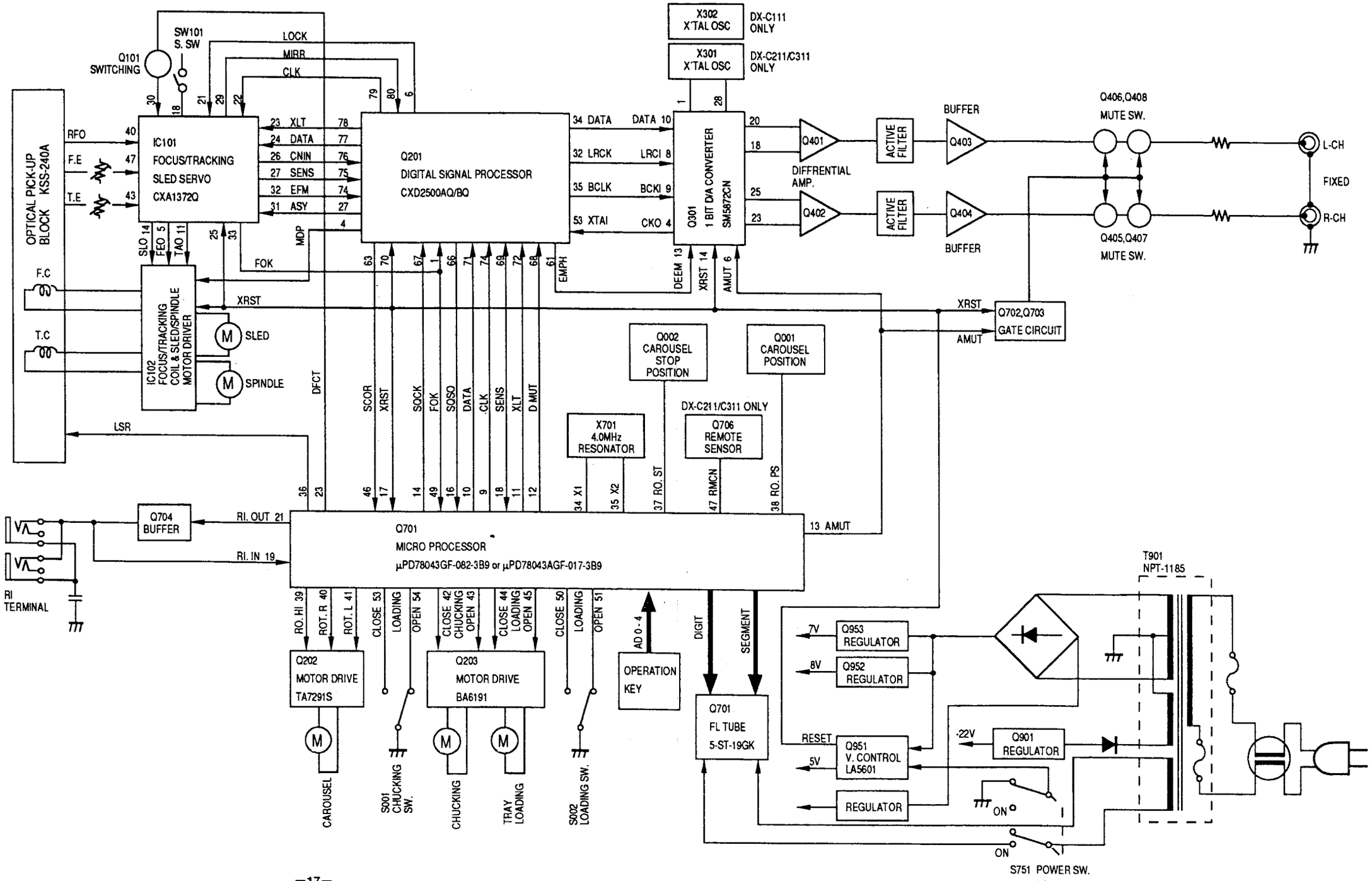
NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

CHANGER MECHANISM PARTS LIST (NCD-56S-C)

REF. NO.	PART NO.	DESCRIPTION
M1	24840095AY	RAIL
M2	24822016BY	BRACKET (GUIDE)
M3	24836006AY	CUSHION (TRAY)
M4	24836016Y	CUSHION (LOCK)
M5	24814001A	ARM
M6	27301475	YOKE (CH)
M7	27301474B	CAP (CH)
M8	28181019A	MAGNET (CH)
M9	24836007Y	CUSHION (A2)
M10	24840096Y	ROULETTE
M11	24840097Y	TRAY
M12	24840098Y	ROLLER
M18	24804015Y	MOTOR
M19	24810028Y	PULLEY
M20	24609071AY	SCREW
M21	24816009Y	RBR BELT (A)
M22	24816010AY	RBR BELT (B)
M23	24816011Y	RBR BELT (D)
M24	24810029Y	GEAR (A)
M25	24810030Y	GEAR (B)
M26	24810031Y	GEAR (D)
M27	24810026Y	CAM GEAR (A)
M28	24810027Y	CAM GEAR (B)
M29	24834014Y	WASHER
M30	24828007Y	SHAFT
M31	24820025Y	SPRING
M32	24822017Y	BRACKET (PH)
M33	24800011BY	CDP M
M34	24802017AY	CHASSIS AS
M35	24802015AY	CHASSIS

REF. NO.	PART NO.	DESCRIPTION
M36	24828008Y	SHAFT (A)
M37	24828009AY	SHAFT (B)
M38	24828010Y	SHAFT (C)
M39	24828011Y	SHAFT (D)
M40	831430100Y	3TTW + 10P (BC), SCREW
M41	833430080Y	3TTP + 8P (BC)SCREW
M42	82112606Y	2.6P + 6FN, SCREW
M43	8930401SY	RING (E)
M44	8930201SY	RING (E)
M45	8930301SY	RING (E)
M46	1H242542-1Y	ETC-AS
M47	1H242543-1Y	ETC-AS
M48	1H242544-1Y	SW-AS
M49	1H242545-1Y	SW-AS
M50	2046220822Y	FLAT CABLE
M51	24609073Y	SCREW
M52	24834015	EDGING
M53	260208Y	WIRE TIE
M54	24836017Y	CUSHION (OP)

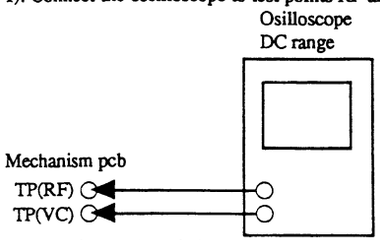
BLOCK DIAGRAM



ADJUSTMENT PROCEDURES

It is not necessary to perform the adjustment of optical pickup.
This confirmation should be made when replacing the optical pickup.

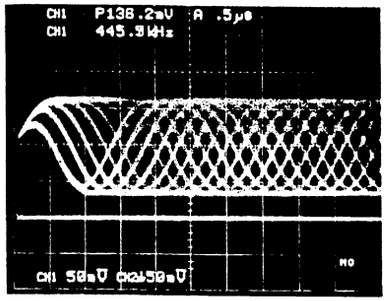
1). Connect the oscilloscope to test points RF and VC.



2). Turn the power switch on.

3). Load the test disc YEDS-18 on the tray and press the play button.

4). Confirm that the waveform on the oscilloscope is optimum eye pattern and optimum level as shown photo 1.
Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.



REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

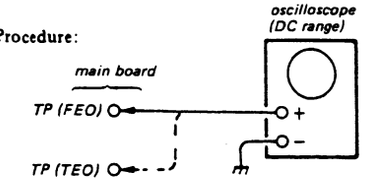
Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP →▷PLAY or automatic selection (⏮ ⏭buttons pressed. (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP→▷PLAY or automatic selection (⏮ ⏭ buttons pressed.)	–	low
• Disc table opens shortly after STOP→▷PLAY.	low or high	–
• Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
• More poise during 2-axis device operation.	high	high

The following is a simple adjustment method.

– Simple Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:



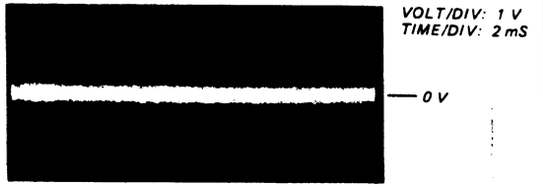
1. Keep the set horizontal.
(If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Insert disc (YEDS-18) and press ▷PLAY button.
3. Connect oscilloscope to RF/ Servo board TP (FE).
4. Adjust RV102 so that the waveform is as shown in the figure below. (focus gain adjustment)

- Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain

high focus gain

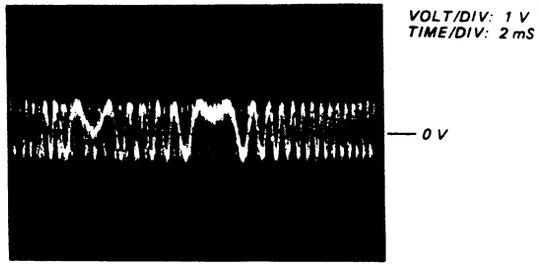
5. Connect oscilloscope to RF/ Servo board TP (TE).
6. Adjust RV101 so that the waveform is as shown in the figure below. (tracking gain adjustment)



- Incorrect Examples (fundamental wave appears)

low tracking gain

high tracking gain
(higher fundamental wave than for low gain)



PRINTED CIRCUIT BOARD — PARTS LIST

Main circuit pc board (NAAR-4920)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q201	22240487 or	CXD2500AQ or
	22240487A	CXD2500BQ
Q202	22240239	TA7291S
Q203	22240771	BA6191
Q301	22240726	SM5872CN
Q401	22240191	NJM4565D-D
Q402	22240191	NJM4565D-D
Q403	22240191	NJM4565D-D
Q404	22240191	NJM4565D-D
Q701	22240812	µPD78043AGF-017-3B9
Q951	22240534	LA5601
	Transistors	
Q405-Q408	2211706 or	2SD655-F or
	2211705	2SD655-E
Q702	221281	DTC114YS
Q703, Q704	2212600	DTA124ES
Q901	2211503 or	2SA950-O or
	2211504	2SA950-Y
Q952	2211706 or	2SD655-F or
	2211705	2SD655-E
Q953	2202706 or	2SD2394-F or
	2202115	2SD2061-E
Q957	2211255	2SC1815-GR
	Diodes	
D201	223205 or	1SS270A or
	223163	1SS133
D202	224450562	MTZ5.6B, Zener
D701	223205 or	1SS270A or
	223163	1SS133
D702	224450562	MTZ5.6B, Zener
D703	223205 or	1SS270A or
	223163	1SS133
D704	224450562	MTZ5.6B, Zener
D906	224452204	MTZ22D, Zener
D951	224450753	MTZ7.5C, Zener
D952	223205 or	1SS270A or
	223163	1SS133
	Crystals	
X301	3010159	AT-38-169, Crystal
X701	3010229	EFOEC4004A4, Cera lock
	Capacitors	
C201	374721524	1500pF±5%, 50V, Plastic
C202	374724734	0.047µF±5%, 50V, Plastic
C203	354721019	100µF, 6.3V, Elect.
C205	374721034	0.01µF±5%, 50V, Plastic
C206	354781099	0.1µF, 50V, Elect.
C207-C210	354744709	47µF,16V, Elect.
C303, C305, C307	354722219	220µF, 6.3V, Elect.
C308	374721044	0.01µF±5%, 50V, Plastic
C309	354722219	220µF, 6.3V, Elect.
C310, C407, C408	374721044	0.01µF±5%, 50V, Plastic
C409, C410, C413, C414	374721824	1800pF±5%, 50V, Plastic
C415, C416	374724724	4700pF±5%, 50V, Plastic
C419	354781009	10µF, 50V, Elect.
C420	354781009	50V, 10µF, Elect.
C431-C434	354744709	47µF, 16V, Elect.
C439, C440	354744719	470µF, 16V, Elect.
C701	354721019	100µF, 6.3V, Elect.
C703	354762209	22µF, 35V, Elect.
C707	374721024	1000pF±5%, 50V, Plastic
C708, C709	374722734	0.027µF±5%, 50V, Plastic
C714	354780109	1µF, 50V, Elect.
C903, C904	354764709	47µF, 35V, Elect.
C924, C925	374721044	0.01µF±5%, 50V, Plastic
C953	354742219	220µF, 16V, Elect.
C954	374721044	0.01µF±5%, 50V, Plastic
	374722244	0.22µF±5%, 50V, Plastic
C955	354724719	470µF, 6.3V, Elect.
C956	374721044	0.01µF±5%, 50V, Plastic
	374722244	0.22µF±5%, 50V, Plastic
C957	354780109	1µF, 50V, Elect.
C958	354721029	1000µF, 6.3V, Elect.
C960	374721044	0.01µF±5%, 50V, Plastic
C961	374722734	0.027µF±5%, 50V, Plastic
C962	354722219	220µF, 6.3V, Elect.
C963, C964	354744709	47µF, 16V, Elect.
C966	354781009	10µF, 50V, Elect.
C967	354742219	220µF, 16V, Elect.
	Resistors	
R903	452530184F	1.8ohms, 1/2W, Metal oxide
	Sockets	
P101A	25050895	NSCT-31P690, Socket
P702A	25051227	NSCT-34P1017, Socket
	Terminals	
P401	25045408	NPJ-2PDBL233, Line out
P701	25045330	NPJ-2PDBL184, RI

Display circuit pc board (NADIS-4921)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q705	212132	5-ST-19GK, FL TUBE
Q706	24130010	HC-312, Remote sensor
	Diode	
D707	224450512	MTZ5.1B, Zener
	Capacitor	
C710	355721019	100µF, 6.3V, Elect.
	Switches, Terminals, Sockets	
S703-S705	25035652	NPS-111-S604, Push SW.
S708-S710	25035652	NPS-111-S604, Push SW.
S713-S715	25035652	NPS-111-S604, Push SW.
S718-S720	25035652	NPS-111-S604, Push SW.
S724-S725	25035652	NPS-111-S604, Push SW.
S729, S730, S734, S735, S739, S740	25035652	NPS-111-S604, Push SW.
	Socket	
P703A	25051227	NSCT-34P1017, Socket

Power supply pc board (NAPS-4922)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diode	
D901-D905	22380032	1SR139-100
	Coil	
L901	231222	NCH-3454
	Capacitors	
C902	354784709	47µF, 50V, Elect.
C906	393142227	2200µF, 16V, Elect.
C907	393142227	2200µF, 16V, Elect.
C909	3500077	DE7150F, 472M, IS
	Plug	
⚠ P901A	25055676	NPLG-2P632, FOR AC CORD
	Others	
	25050065Y	YSH403T, Fuse holder, <P,W>
⚠ S901	25065437Y	NSS-22157P, Slide SW., <W>

Power switch pc board (NASW-4923)

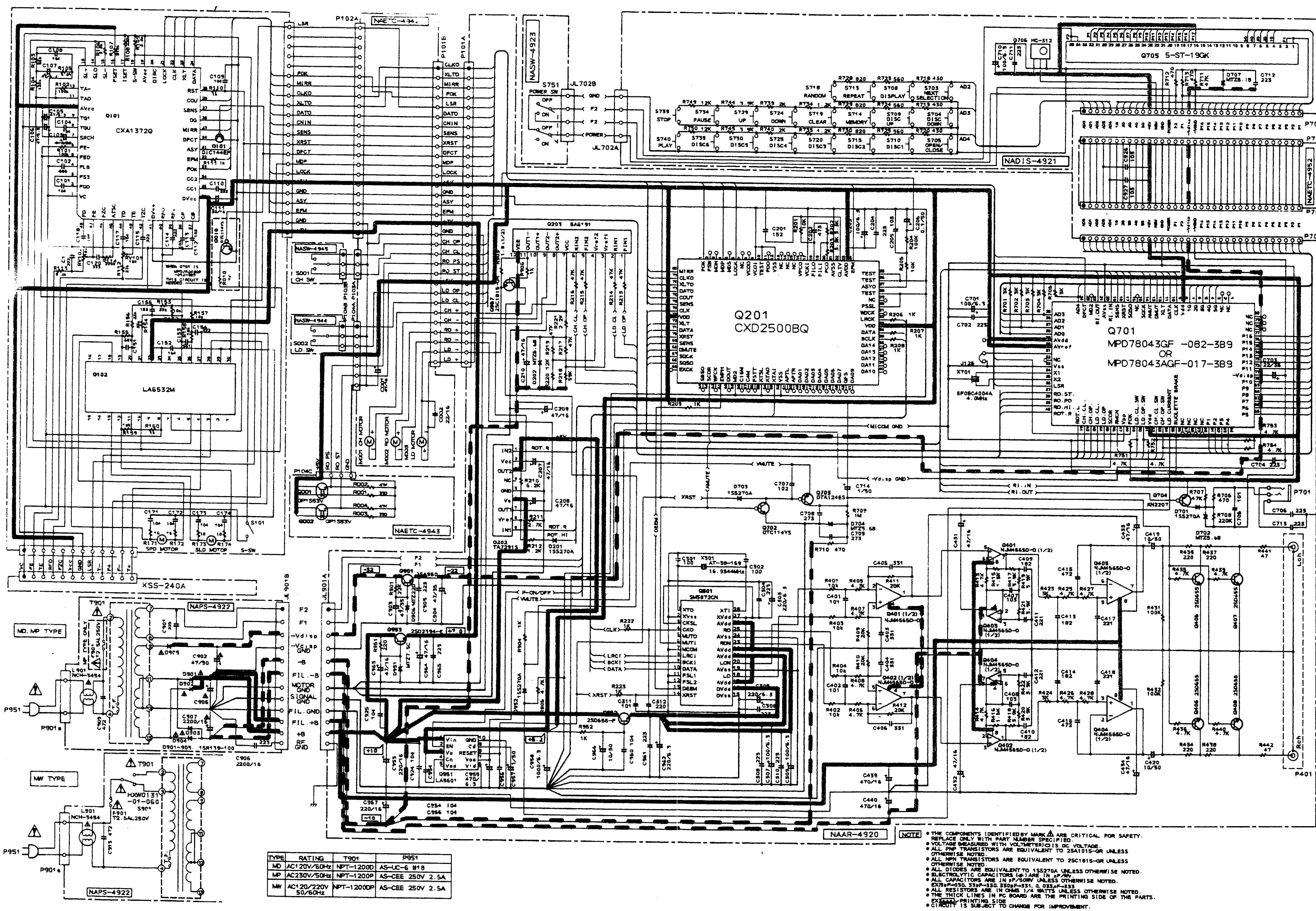
CIRCUIT NO.	PART NO.	DESCRIPTION
⚠ S751	25035481	NPS-122-L443, Push SW.

RF/SERVO pc board

CIRCUIT NO.	PART NO.	DESCRIPTION
IC101	22240394	CXA1372Q, IC
IC102	22240551	LA6532M, IC
Q101	2214290	DTC144EF, Transistor
S101	25065446	NLF/11022, Leaf SW.

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

SCHEMATIC DIAGRAM



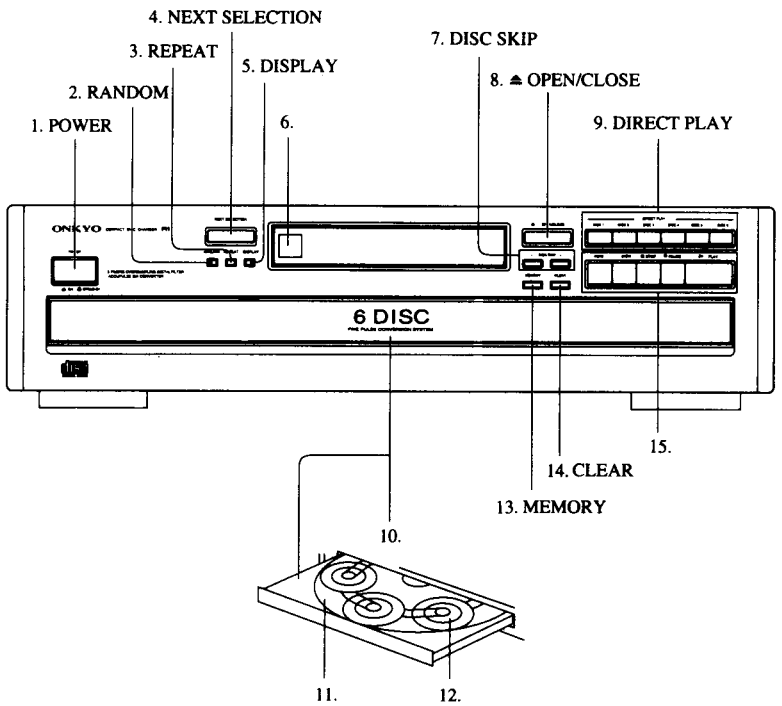
TYPE	RATING	T901	P951
MD	AC120V/60Hz	NPT-1200D	AS-UC-6 #18
MP	AC230V/50Hz	NPT-1200P	AS-CEE 250V 2.5A
MW	AC120/220V 50/60Hz	NPT-1200DP	AS-CEE 250V 2.5A

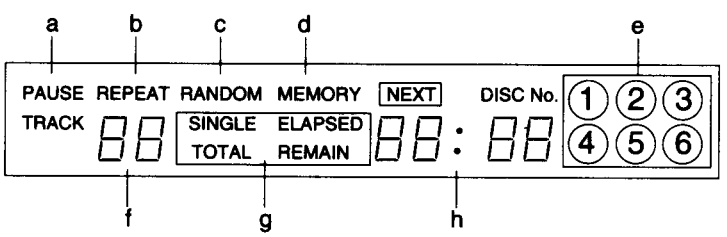
NOTE

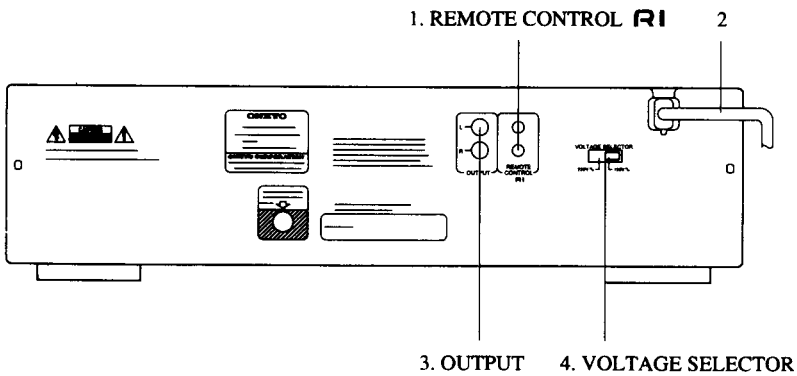
- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ▭ IS DC VOLTAGE.
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS270A UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN μF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED. EX)3pF→030, 33pF→330, 330pF→331, 0.033μF→333
- ALL RESISTORS ARE IN OHMS 1/4 WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES IN PC BOARD ARE THE PRINTING SIDE OF THE PARTS. EX) ▬ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

CONTROL POSITIONS AND NAMES

NOTE:
If there is a protective film on the display, which is making it difficult to read the display, remove it.







Front panel

1. POWER button
2. RANDOM button
3. REPEAT button
4. NEXT SELECTION button
5. DISPLAY button
6. Remote Control Sensor
7. DISC SKIP buttons
8. ⏏ OPEN/CLOSE button
9. DIRECT PLAY buttons
10. Loading drawer
11. Disc tray(s) (1 - 6)
12. Carousel
13. MEMORY button
14. CLEAR button
15. Operation buttons
    - ⏮ :Down button
    - ⏭ :Up button
    - ⏸ PAUSE :Pause button
    - ■ STOP :Stop button
    - ▶ PLAY :Play button

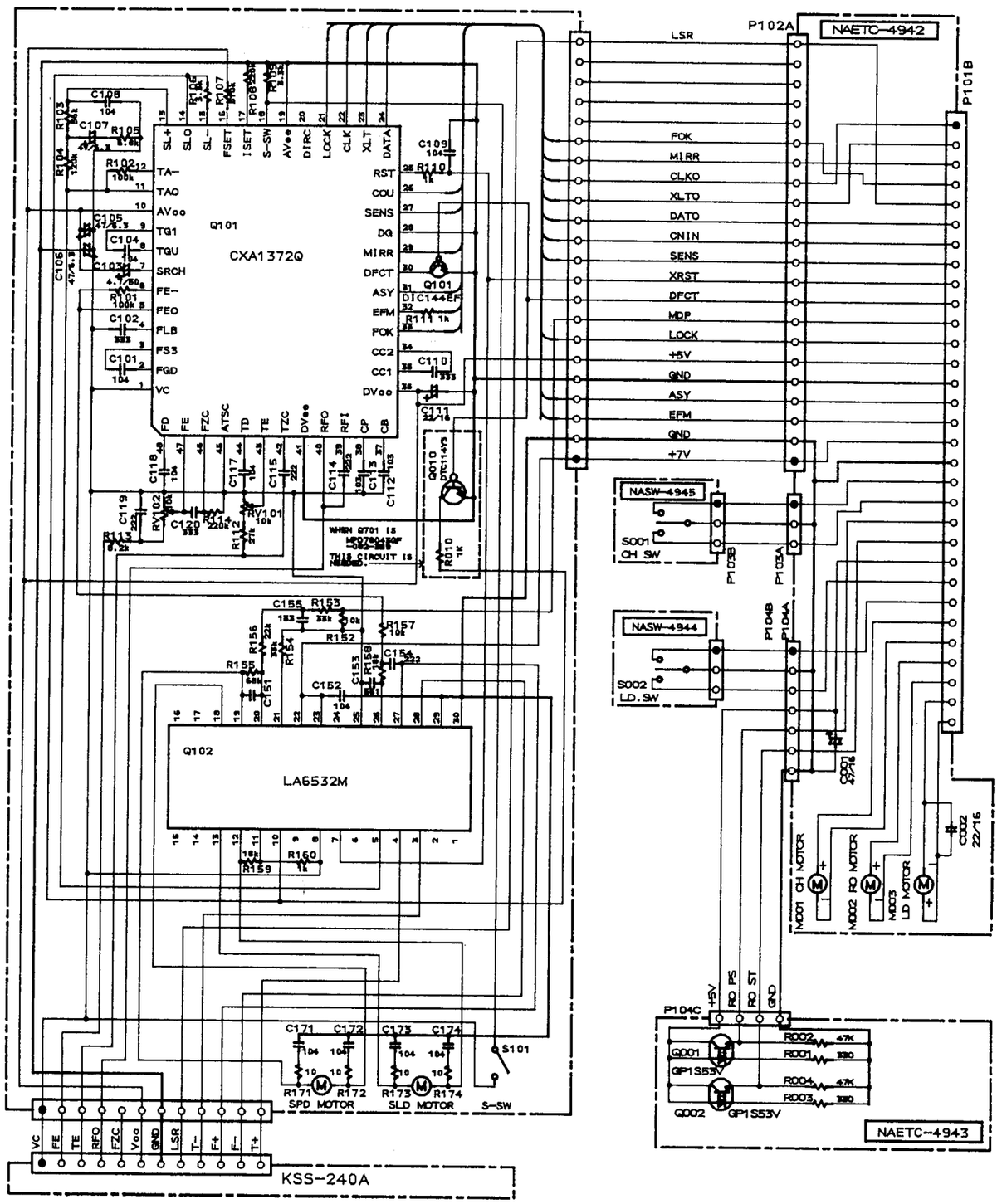
Display

a. PAUSE indicator
b. REPEAT indicator
c. RANDOM indicator
d. MEMORY indicator
e. Disc number indicator
f. TRACK number display
g. ELAPSED/REMAIN indicator
h. Time display

Rear panel

1. REMOTE CONTROL jacks
2. Power Supply Cord
3. Analog OUTPUT jacks
4. VOLTAGE SELECTOR (Worldwide models only)

SCHEMATIC DIAGRAM (2/2)



RF PCB